Subject: Re: Technique to find maximum in 100x100 element moving box Posted by wlandsman on Sat, 15 Oct 2016 23:32:30 GMT

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On Thursday, October 13, 2016 at 11:02:14 AM UTC-4, Samantha Tushaus wrote: > Interestingly, my method, the "dilute" method, and the no-ifs loop all take the same amount of time (63, 64, and 62 seconds, respectively).

I surprised that you find DILATE() takes about the same amount of time as the other algorithms. I find DILATE() to be even faster than the fast algorithms presented by Lajos and Heinz. This is not surprising, since DILATE() is an intrinsic IDL function coded in C, and so will always be faster than the same algorithm coded in IDL.

However, there are two drawbacks to DILATE(). First, it only works on non-negative integer data, including ULONG. The default is to return byte data and you have to set the /ULONG or /PRESERVE_TYPE keywords to get it to return 32 bit data. The second problem is that DILATE() does not seem to handle the edges (where the moving box goes off the edge of the array). In fact, I can't figure out what DILATE() does with the edge values, but it is not the obvious of trimming the size of the box so it fits within the array.